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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,597	04/12/2005	Seung-Hee Yu	YOM-0100	9540

23413 7590 04/04/2007

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EXAMINER	
CHIU, TSZ K	
ART UNIT	**PAPER NUMBER**
2822	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,597	YU ET AL.	
	Examiner	Art Unit	
	Tsz K. Chiu	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/18/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6-13 rejected under 35 U.S.C. 102(b) as being anticipated by Seo et al. (5825437).

With respect to claims 6 and 9, Seo discloses a gate wire (1 and 2, For example Fig. 6) formed on an insulating substrate (1, For example Fig. 13) and including a gate line (cross-section taken along line B-B', For example Fig. 6) and a gate electrode (cross-section taken along line A-A', For example Fig. 6) connected to the gate line (cross-section taken along line B-B', For example Fig. 6); a gate insulating film (5, For example Fig. 13) covering the gate wire (1 and 2, For example Fig. 6); a semiconductor layer (6, For example Fig. 13) formed on the gate insulating film (5, For example Fig. 13); a data wire (cross-section taken along line C-C', For example Fig. 6) formed on the gate insulating film (5, For example Fig. 13) or the semiconductor layer (6, For example Fig. 13) and including a data line (3, For example Fig. 13), a source electrode connected to the data line (3, For example Fig. 13) and located on the semiconductor layer (6, For example Fig. 13) and a drain electrode (TFT right reference number 8, For example Fig. 13) formed on the semiconductor layer (6, For example Fig. 13) and located opposite the source electrode (TFT left reference number 8, For example Fig.

13) with respect to the gate electrode (cross-section taken along line A-A', For example Fig. 6); a passivation layer (9, For example Fig. 13) covering the data wire (cross-section taken along line C-C', For example Fig. 6); and a pixel electrode (10, For example Fig. 8e) including a transparent conductive material or a reflective conductive material (ITO or IZO) and connected to the drain electrode (TFT right reference number 8, For example Fig. 13), wherein the gate wire (1 and 2, For example Fig. 6) or the data wire (cross-section taken along line C-C', For example Fig. 6) comprises a metal film (2a, For example Fig. 8e) including a conductive material (column 2, lines 59-65) and a metal oxide film (4b,For example Fig. 8e) including an oxide of a conductive material.

With respect to claim 7 and 8, Seo discloses wherein the metal film (2a) comprises one of Cr, Mo, Mo alloy, Al and Al alloy and the metal oxide film (4b) comprises one of oxides of Cr, Mo, Mo alloy, Al and Al alloy (column 6, lines 7-12 and 19-24).

With respect to claim 10, Seo discloses wherein the gate wire (1 and 2, For example Fig. 6) further includes a gate pad (2b,3b, For example Fig. 8e) connected to the gate line (cross-section taken along line B-B', For example Fig. 6), and the data wire (cross-section taken along line C-C', For example Fig. 6) further includes a data pad connected to the data line (3, For example Fig. 13), and the thin film transistor array panel further comprises: a subsidiary gate pad (2b,3b, For example Fig. 8e) including substantially the same layer as the pixel electrode (10, For example Fig. 8e) and connected to the gate pad (2b,3b, For example Fig. 8e); and a subsidiary data pad (2c,3c, For example Fig. 8e) including substantially the same layer as the pixel

electrode (10, For example Fig. 8e) connected to the data pad (2c,3c, For example Fig. 8e).

With respect to claim 11, Seo discloses wherein the passivation film (9, For example Fig. 13) comprises SiOC, SiOF, SiNx or an organic insulating material (column 7, lines 55-61).

With respect to claim 12, Seo discloses wherein the semiconductor layer (6, For example Fig. 13) has substantially the same planar shape as the data wire (cross-section taken along line C-C', For example Fig. 6) excluding a channel portion between the source electrode (TFT left reference number 8, For example Fig. 13) and the drain electrode (TFT right reference number 8, For example Fig. 13).

With respect to claim 13, Seo discloses wherein the pixel electrode (10, For example Fig. 8e) is located on the passivation layer (9, For example Fig. 13), and the pixel electrode (10, For example Fig. 8e) and the drain electrode (TFT right reference number 8, For example Fig. 13) are connected to each other via a first contact hole provided in the passivation layer (9, For example Fig. 13).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tsz K. Chiu whose telephone number is 571-272-8656. The examiner can normally be reached on 0800 to 1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra V. Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC
April 1, 2007

Mary Wilczewski
Primary Examiner